CLAIM AMENDMENTS:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method comprising:

~~phase modulating an Asynchronous Transfer Mode (ATM) signal based on an Internet Protocol (IP) signal to form a combined ATM/IP signal~~

communicating an Internet Protocol (IP) signal and an Asynchronous Transfer Mode (ATM) signal via an optical medium, wherein the ATM signal is phase modulated based on the IP signal.

2. (Currently amended) The method of claim 1 wherein ~~said phase modulating comprises phase modulating~~ the ATM signal is phase modulated based on the IP signal without exceeding a specified tolerance of symbol period of the ATM signal.

3. (Currently amended) The method of claim 1, wherein ~~said~~ the phase modulating encodes multiple bits of the IP signal per pulse in the ATM signal.

4. (Currently amended) The method of claim 1, wherein ~~said~~ the phase modulating encodes two bits of the IP signal per pulse in the ATM signal.

5. (Currently amended) The method of claim 1, further comprising forming a combined ATM/IP signal by modulating a phase of the ATM signal based on the IP signal.

~~further comprising:~~

~~communicating the combined ATM/IP signal on an ATM-based network;~~

~~receiving the combined ATM/IP signal via the ATM-based network; and~~

~~phase demodulating the combined ATM/IP signal to extract the IP signal.~~

6. (Currently amended) The method of claim 1, wherein the ATM-based network comprises a G.983-based network.

7. (Currently amended) The method of claim 1, further comprising:

communicating the ATM signal and the IP signal ~~combined ATM/IP signal~~ to ~~multiple locations including~~ a first location and a second location~~;~~

~~receiving the combined ATM/IP signal at the first location;~~

~~extracting, at the first location, an ATM stream specific to the first location from the combined ATM/IP signal;~~

~~receiving the combined ATM/IP signal at the second location; and~~

~~phase demodulating the combined ATM/IP signal at the second location to extract an IP stream~~.

8. (Currently amended) The method of claim [[7]]1, wherein the ATM signal and the IP signal are ~~combined ATM/IP signal is~~ communicated via a passive optical network ~~to the multiple locations~~.

9-11. (Canceled).

12. (Currently amended) An optical network ~~terminal~~ termination (ONT) to extract an Internet Protocol (IP) stream from a received signal, the ONT comprising:

a phase demodulator adapted to:

phase demodulate a combined Asynchronous Transfer Mode (ATM)/Internet Protocol (IP) signal to extract ~~an~~ the IP stream, wherein the combined ATM/IP signal has been received and wherein the combined ATM/IP signal comprises an ATM signal that has been phase modulated based on an IP signal.

13. (Currently amended) The ONT of claim 12, wherein the phase demodulator is further adapted to decode multiple bits of the IP stream per pulse in the combined ATM/IP signal.

14. (Currently amended) The ONT of claim 12, wherein the phase demodulator is further adapted to decode two bits of the IP stream per pulse in the combined ATM/IP signal.

15. (Currently amended) An apparatus to communicate an Asynchronous Transfer Mode (ATM) signal and an Internet Protocol (IP) signal, the apparatus comprising:

an optical line terminal (OLT), the OLT comprising[[:]] a phase modulator configured to phase modulate ~~an~~ the ~~Asynchronous Transfer Mode (~~ATM[[)]] signal based on [[an]] the ~~Internet Protocol (~~IP[[)]] signal to produce a combined ATM/IP signal, the OLT further to output ~~to form~~ [[a]] the combined ATM/IP signal.

16. (Currently amended) The OLT of claim 15, wherein the phase modulator is further configured to phase modulate the ATM signal based on the IP signal without exceeding a specified tolerance of symbol period of the ATM signal.

17. (Currently amended) The OLT of claim 15, wherein the phase modulator further configured to encode[[s]] multiple bits of the IP signal per pulse in the ATM signal.

18. (Canceled).

19. (New) A method of communicating an IP stream, the method comprising:

extracting a first IP stream from a combined Asynchronous Transfer Mode (ATM) signal/Internet Protocol (IP) signal received at a first location, wherein extracting the first IP stream comprises phase demodulating the combined ATM/IP signal;

wherein the combined ATM/IP signal comprises an ATM signal that has been phase modulated based on an IP signal.

20. (New) The method of claim 19, further comprising extracting a first ATM stream from the combined ATM/IP signal received at a second location, wherein the extracted first ATM stream is specific to the second location.

21. (New) The method of claim 20, further comprising extracting a second ATM stream from the combined ATM/IP signal received at a third location, wherein the second ATM stream is specific to the third location.

22. (New) The method of claim 19, further comprising extracting a second IP stream at a second location by phase demodulating the combined ATM/IP signal.

23. (New) The method of claim 22, wherein the first IP stream is specific to the first location and the second IP stream is specific to the second location.

24. (New) The ONT of claim 12, wherein the extracted IP stream is specific to the ONT.